

Motivational Incentives in Drug Abuse Treatment

- History of motivational incentives
- Research with drug abusers
- Translation into clinical practice



Consequences Change Behavior

- **Rewards lead to increase**
- **Punishment leads to decrease**



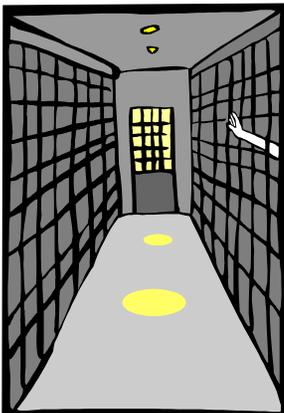
Creativity in the Dolphin



Reward and Punishment In Everyday Life



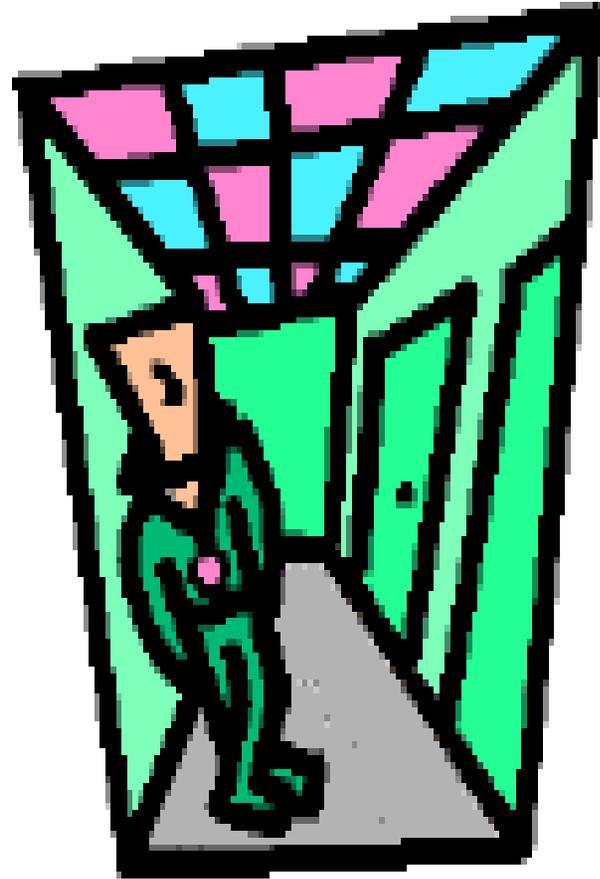
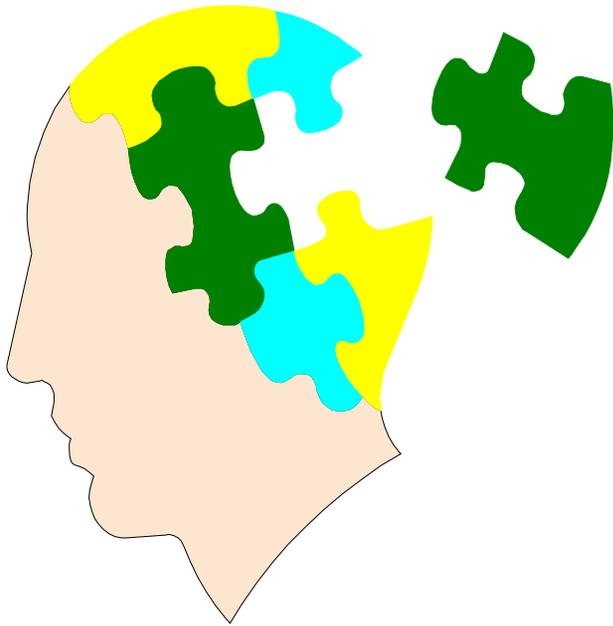
- **Child rearing**
 - *Praise and discipline*
- **Education**
 - *Grades/honors and detention/suspension*
- **Business organizations**
 - *Bonuses; promotions and sanctions/demotions*
- **Criminal justice**
 - *Arrest/incarceration and early release*



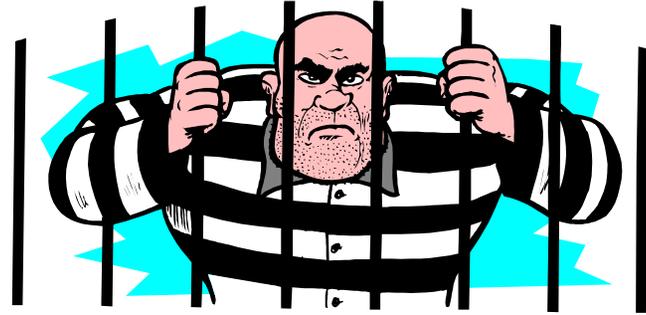
Behavior Modification in School Settings



Token Economies in Institutional Settings



Punishments



- **Are necessary under limited circumstances but-**
- **Do not teach what to do; only what not to do**
- **Promote harsh and demeaning atmosphere**
- **May also do harm (e.g. promote aggression)**

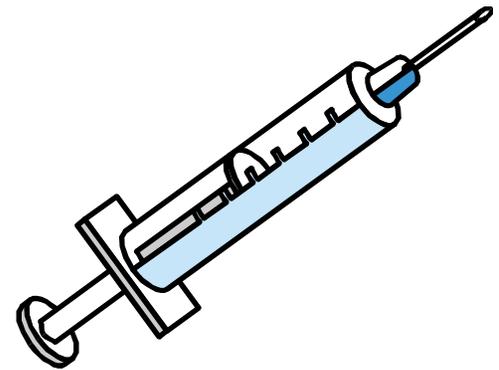
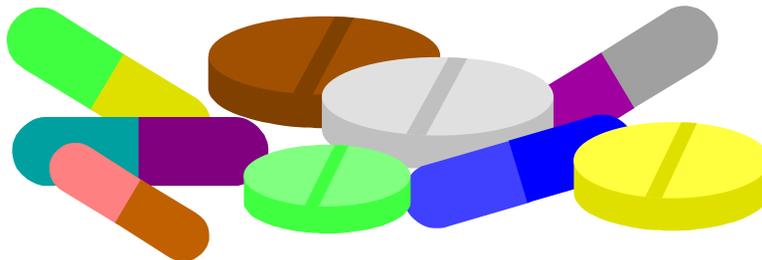
Rewards



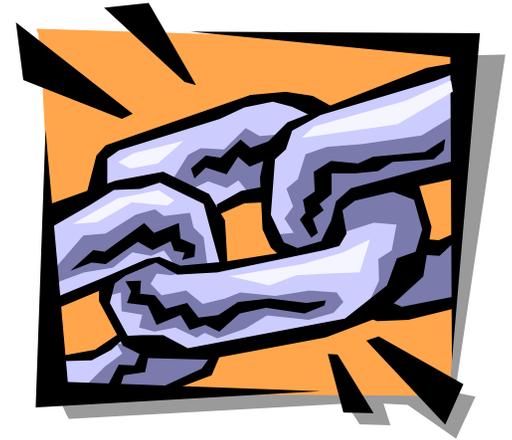
- **Teach new behaviors and promote growth**
- **Promote positive atmosphere & communication**
- **Promote self-esteem and self-confidence**

Application to Drug Abuse

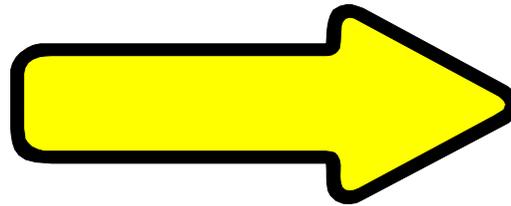
- **Measurable target behavior**
- **Rewarding consequence**



It is the **CONTINGENCY**
that matters.....



BEHAVIOR



REWARD



*Giving things away for free
does NOT change behavior*

Target Behaviors in Drug Abuse

- **Improved therapy attendance**
- **Decreased drug use**
- **Treatment plan goal attainment**

Rewards and Punishers in Drug Abuse Treatment

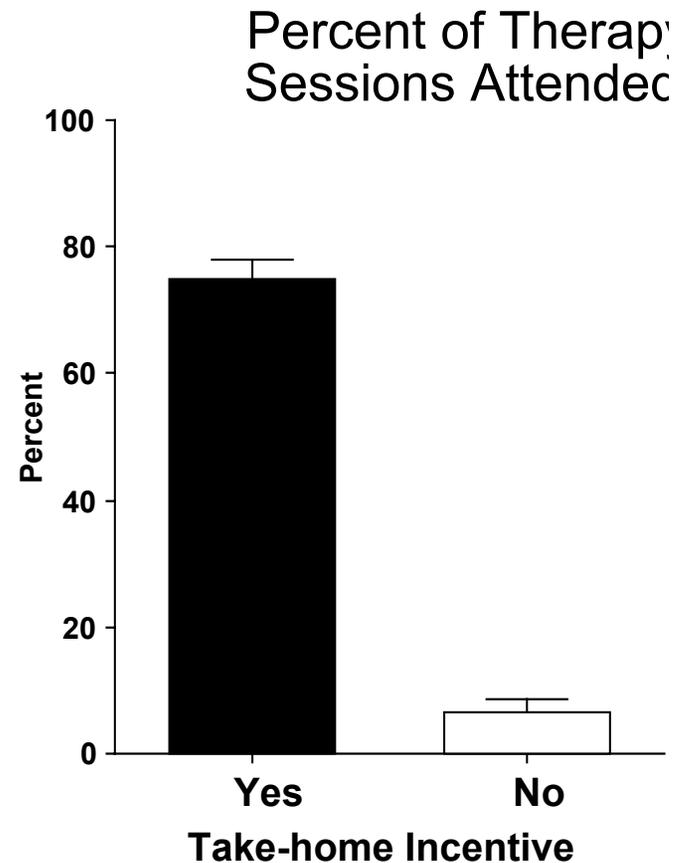
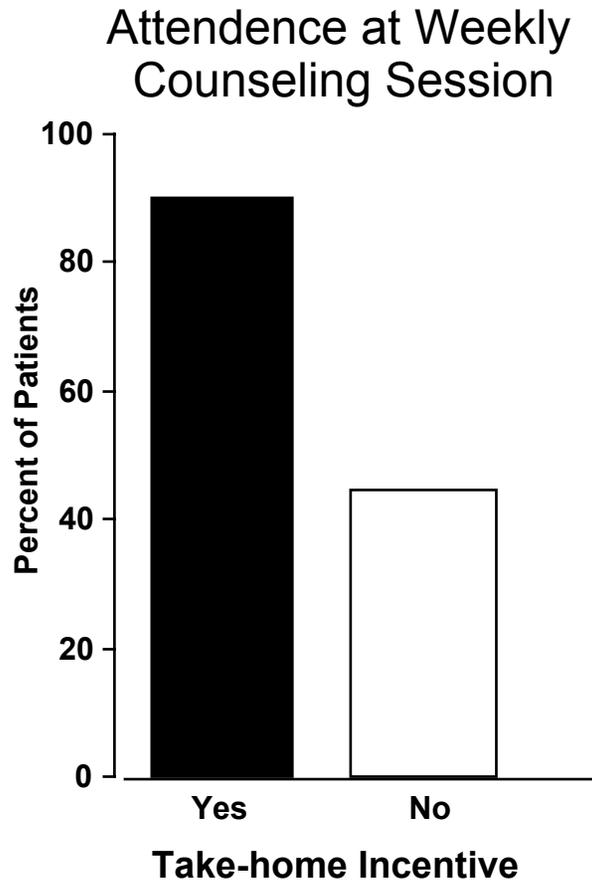
Positive

- take-homes
- award ceremonies
- certificates; key chains
- status/recognition

Negative

- time restriction
 - missed services
 - probation
 - dismissal
-
- What incentives are used in your program?

Take-home Incentives Improve Counseling Attendance



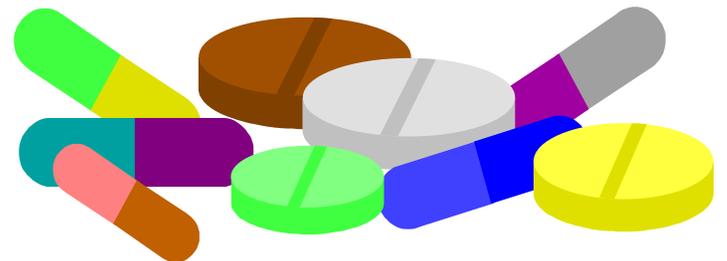
Incentives Reduce Drug use: Benzodiazepines

Incentives Effects on Benzodiazepine Use

3-month intervention with chronic methadone maintained benzo users:

Percent benzo negative urines

- | | |
|---------------------|-----|
| – Before incentives | 9% |
| – During incentives | 53% |
| – After incentives | 11% |



Motivational Incentives with Monetary Rewards

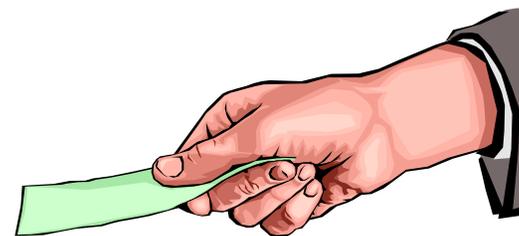
Research has shown that monetary incentives can :

- Increase treatment retention
- Decrease drug use during treatment



Motivational Incentives Research

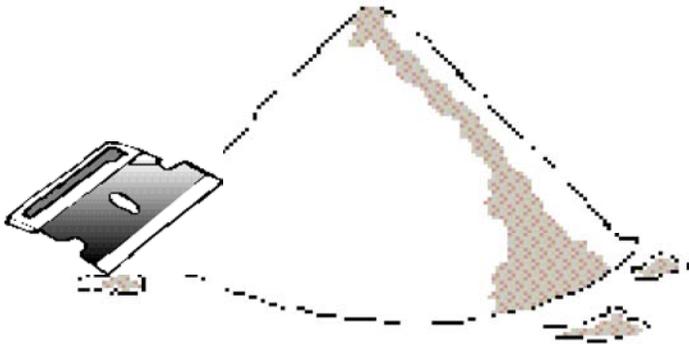
- Clients earn vouchers for drug-free urines
 - usually cocaine-free urines
- Vouchers are worth money
- Vouchers are exchanged for
 - retail items (e.g. clothing, sports equipment)
 - services (e.g. rent; bill payments)



Research on Motivational Incentives

Cocaine abusers in drug-free treatment

Cocaine abusers in methadone treatment



Treatment of Cocaine Dependence in a Drug-Free Clinic

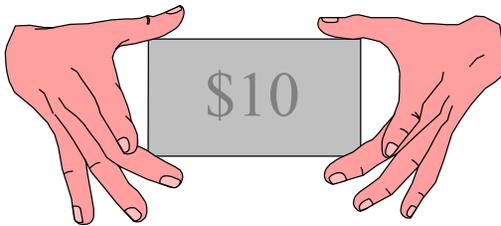
Higgins et al., 1994

Incentive Treatment

Community Reinforcement
Approach Therapy
Urine testing 2x/week
Vouchers

Control Treatment

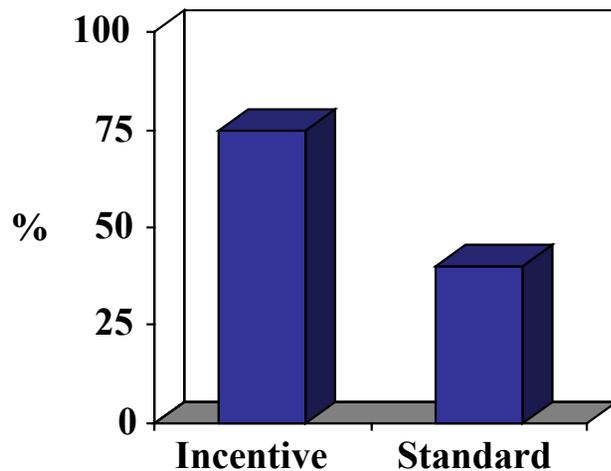
Community Reinforcement
Approach Therapy
Urine testing 2x/week
No vouchers



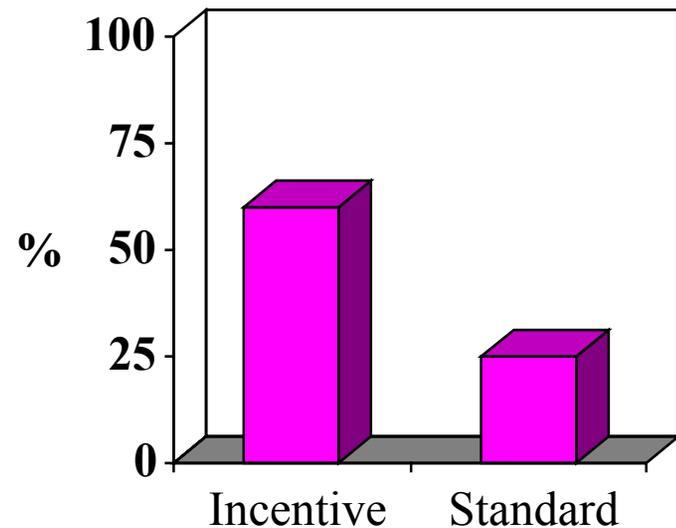
Can earn over \$1000
Actual earnings: \$600

Treatment of Cocaine Dependence

Retained Through
6 month Study



>8 Weeks of Cocaine
Abstinence



One-year Follow-up Results

- **60% versus 45% cocaine abstinent**
- **During-treatment abstinence predicts long-term abstinence**



Treatment of Cocaine Abuse in Methadone Patients

Silverman et al., 1996

Contingent Incentives

3x weekly urine testing
received vouchers only if urine
samples were cocaine
negative

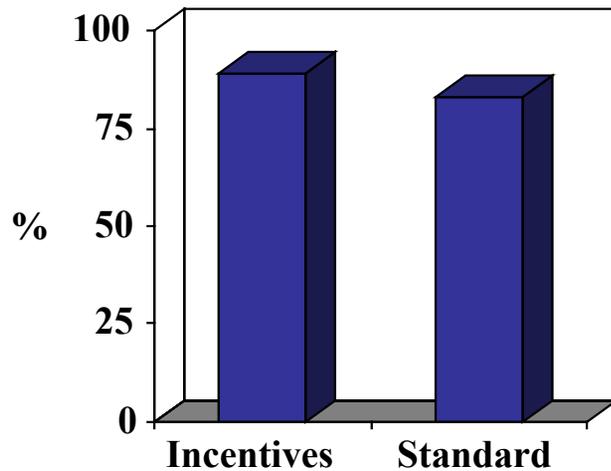
Up to \$1155 available
Average earnings of \$426

Non-Contingent Incentives

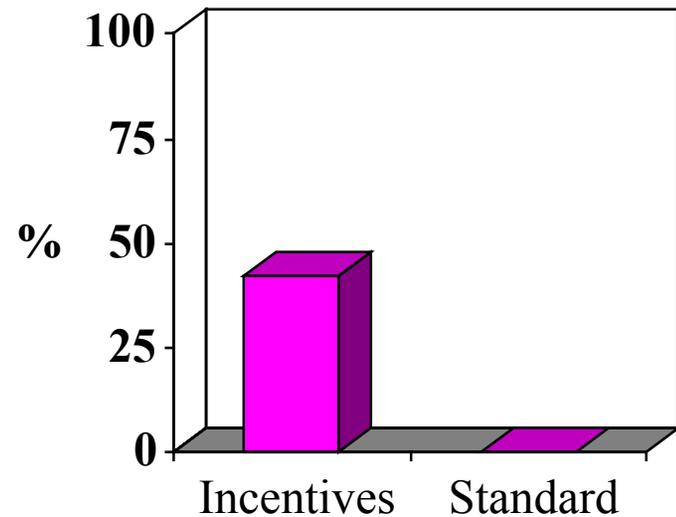
3x weekly urine testing
received vouchers regardless of urine
test results

Treatment of Cocaine Use in Methadone Patients

Retained Through Study



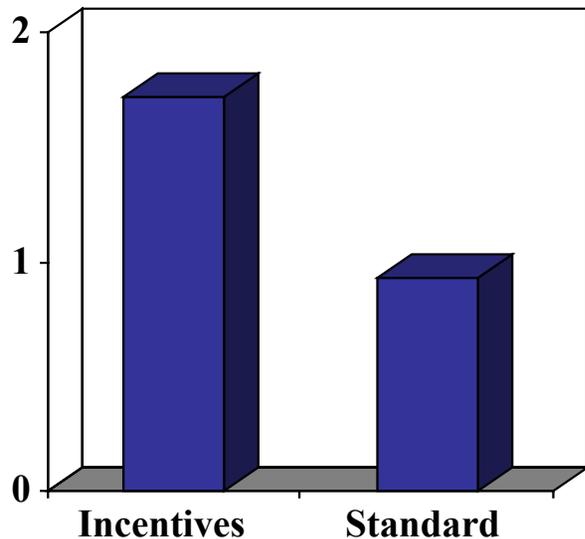
>8 Weeks of Cocaine Abstinence



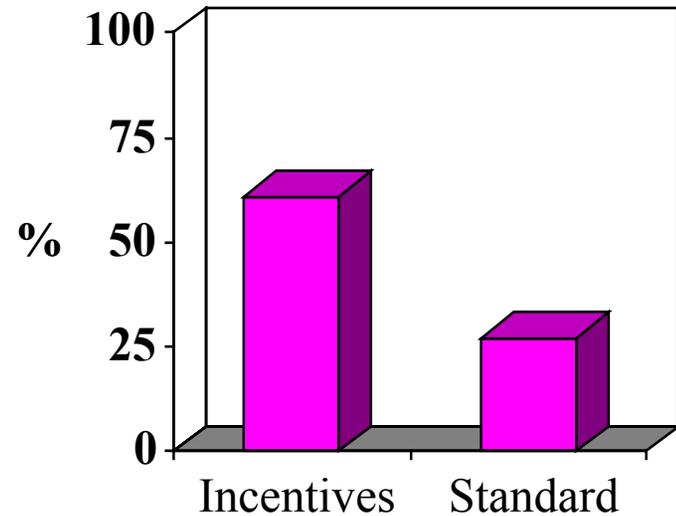
Patient Ratings of Helpfulness



Overall helpfulness of treatment



Used willpower to reduce cocaine use



Incentive Therapies Reduce Drug Use

Opioids

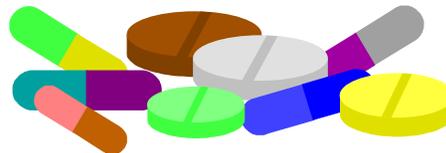
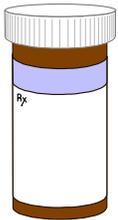
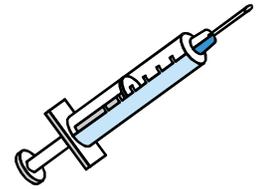
(Bickel et al., 1997; Silverman et al., 1996)

Marijuana

(Budney et al., 1991, Budney et al., 2000)

Nicotine (Tobacco smoking)

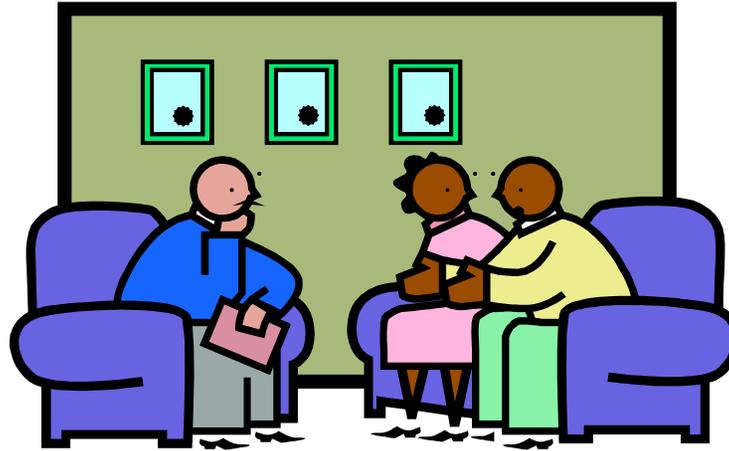
(Stitzer & Bigelow, 1984; Roll et al., 1996)



Voucher Incentives in Marijuana Dependence Treatment

- Percent with 6 weeks of continuous abstinence
 - **Motivational counseling** **5%**
 - **Skills building counseling** **10%**
 - **Counseling plus vouchers** **45%**
 - N-60; total voucher value = \$570 over 12 weeks
- Budney et al. JCCP, 68, 1051-61, 2000*

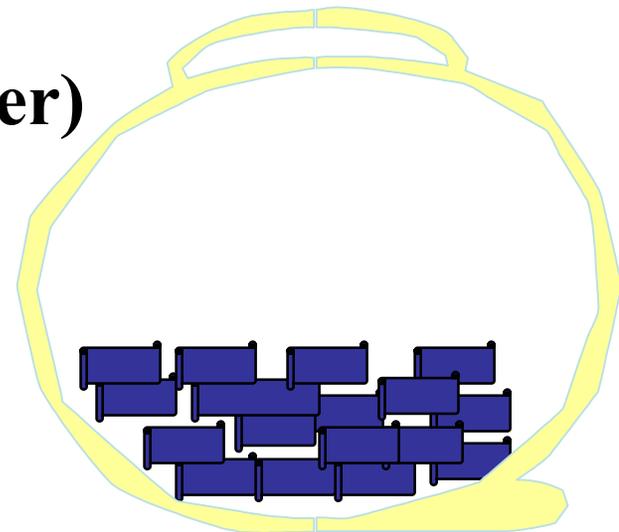
Adaptation into Standard Clinic Settings



Intermittent reward for good behavior
reduces cost

Intermittent Reward

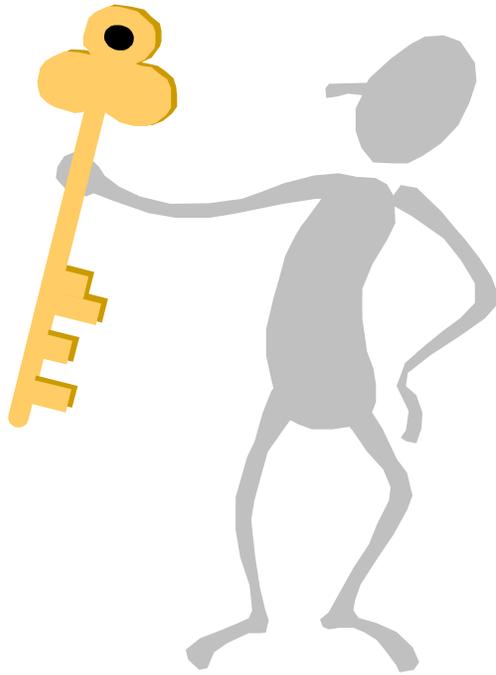
- **Drug-free patient draws from the “fishbowl”**
- **Only 50% of draws are “winners”**
- **Three types of prizes:**
 - **small-** (toiletries; food)
 - **large-** (cordless phone; CD player)
 - **jumbo-** (TV; video)



Incentive Programs for Drug Abusers



Elicit
STRONG
Opinions



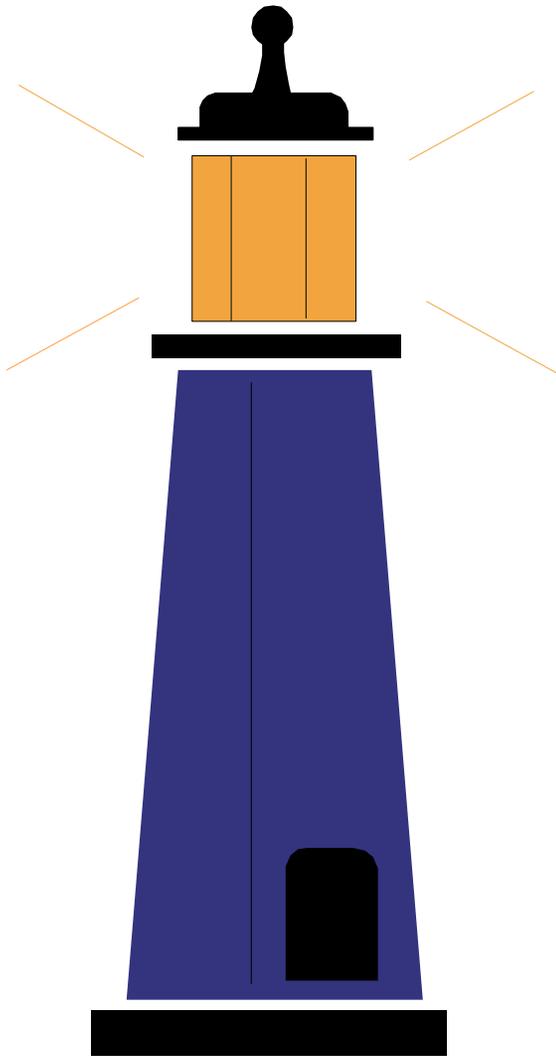
**One Side: Panacea
that can cure the drug
abuse problem**

**Other Side: Coercive,
manipulative tool**



Potential Objections to Incentives

- **People should want to change on their own**
- **Drug abusers shouldn't get special treatment**
- **Behavior change won't last after incentives**



TRUTH:

- **Incentives guide behavior**
- **Lead to beneficial change**
- **Patients feel empowered**

Summary

- **Incentives have a long history in behavioral psychology and are in widespread use**
- **Principles can be applied effectively to drug abuse treatment**
- **Barriers to real world application, including cost and attitudes are being addressed**

